Automation technology - Sensors and actuators



M12 Male angled connector, Contacts: 5, unshielded, moulded on the cable, IP68, UL, PUR, orange, 5 x $0.34\ mm^2$, for welding applications, 10 m Product description

M12-A

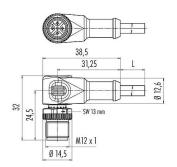
Area Part no. 77 3427 0000 80005-1000

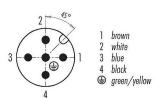
Illustration

Scale drawing

Contact arrangement (Plug-in side)







Technical data

General features

Part no.	77 3427 0000 80005-1000
Connector design	Male angled connector
Cable length	10 m (Other lengths are available on request.)
Version	Connector pin angled
Connector locking system	screw
Termination	moulded on the cable
Degree of protection	IP68
Cross-sectional area	0.34 mm ² / AWG 22
Temperature range from/to	-25 °C / 85 °C
Mechanical operation	> 100 Mating cycles
Weight (g)	80.00
Customs tariff number	85444290
Country of Origin	DE

Electrical parameters

Rated voltage	60 V
Rated impulse voltage	1500 V
Rated current	4.0 A
Insulation resistance	$\geq 10^{10} \Omega$
Pollution degree	3
Overvoltage category	II
Insulating material group	II
EMC compliance	unshielded

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M12-A Area

Part no. 77 3427 0000 80005-1000

Material

Housing material	PUR
Contact body material	PUR
Contact material	CuZn (brass)
Contact plating	Au (gold)
Locking material	Zinc die-cast nickel-plated
REACH SVHC	None (No pollutants)
SCIP number	SCIP-number not available

Authorization/approvals

Approvals UL	
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Classifications

eCl@ss 11.1	27-06-03-11
ETIM 9.0	EC002638

Declarations of conformity

Low Voltage Directive	2014/35/EU (EN 60529:1991;EN 60204-1:2018)
RoHS Directive	2011/65/EU (EN 50581:2012)

Cable data - Structure of the cable

Cable diameter	4.7 mm
Cross section	5 x 0.34 mm ²
Sheath material	PUR
Single-lead insulation	PP9Y halogen-free
Single-lead structure	42 x 0.10 mm
Cable color	orange

Cable data - Electrical properties

Conductor resistance	60 O/Km (20°C)	

Cable data - Mechanical properties

Bending radius, fixed cable	≥ 5 x Ø
Bending radius, moving cable	≥ 10 x Ø
Bending cycles	≥ 10 million
Permitted acceleration	5 m/s ²
Travel distance, horizontal	5 m/s ² -> 5 m
Travel distance, vertical	5 m/s ² -> 2 m
Travel speed	≤ 198 m/min horizontal distance and max. 300 m/min

Cable data - Thermal properties

Temperature range cable in move from/to	-25 °C / 90 °C
Temperature range cable fixed from/to	-50 °C / 90 °C

Automation technology - Sensors and actuators



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Area Part no.

M12-A 77 3427 0000 80005-1000

Cable data - Other features

Halogen free

Automation technology - Sensors and actuators



Product description M12 Male angled connector, Contacts: 5, unshielded, moulded on the cable, IP68, UL, PUR, orange, 5 x 0.34 mm², for

welding applications, 10 m

Area M12-A

Part no. 77 3427 0000 80005-1000

Security notices

The connector must not be plugged or unplugged under load. Non-observance and improper use can result in personal injury.

The connectors have been developed for applications in plant engineering, control and electrical equipment construction. The user is responsible for checking whether the connectors can also be used in other areas of application.

To protect against unintentional opening of the connector, the thread between the housing and the connector head must be secured with a suitable cyanoacrylate adhesive when used in circuits with voltages dangerous to the touch. This does not apply to connectors used in SELV and PELV circuits according to IEC 61140 (EN 61140, VDE 0140-1).

Connectors which are used in circuits with voltages dangerous to the touch may only be installed and used by, or under the supervision of, persons with electrical engineering training, taking into account the applicable regulations and standards.

The user must take suitable safety precautions to ensure that the connector cannot be accidentally disconnected.

Plug connectors with enclosure protection IP67 and IP68 are not suitable for use under water. When used outdoors, the plug connectors must be protected separately against corrosion. For further information on the IP protection classes, please refer to the "Technical Information" download centre.

The plug connector is not suitable for mains voltages Please observe the pollution degree and the overvoltage category. For further information, please refer to the download center "Technical Information".

To lock the cable connector with the device connector, the threaded ring is tightened "hand-tight" (approx. 60 cNm).

The protection class specification applies on condition that the four mounting holes are made as blind holes.